ABI   JCL REQUIREMENTS

JANUARY 2000

Table of Contents

Establishing a Communication Session

Communications between the ABI user and the Customs host computer is accomplished via JES2 Remote Job Entry (RJE). RJE requires strict adherence to 377x Synchronous Data Link Control (SDLC) protocols. Customs strongly recommends the use of an "off-the-shelf" RJE emulator software package. There are many commercially available RJE emulators; a list of known ABI software vendors is available from your ACS Client Representative. Users wishing to write their own communications software *must* consult IBM manual GA27-3145:COMPONENT DESCRIPTION FOR THE 3776 AND 3777 COMMUNICATION TERMINALS and strictly follow data formats and protocols outlined to ensure successful communication with the Customs Data Center.

After a request for a new ABI connection is made through the user's client representative, a technical support representative from the Data Center may contact the user point-of-contact to ensure parameters specified on the Customs computer (for example buffer size) match specifications on the user's system. If the user is using a pre-configured system from an ABI software vendor or the user has previously established an RJE connection he wishes to copy, Data Center personnel will use a "look alike" remote specification to create the new remote definition.

The communications parameters required by the U.S. Customs Service Data Center for ALL clients' SDLC/377x RJE packages are:

STATION ADDRESS: **=**   **01**

This may also be referred to as the "cluster address", "poll address", "PU address", …

NRZI: **=**   **No**

This may be identified at "NRZ = Yes"

COMPRESSION: **=**   **Yes**

Compression must be "On" whether the client's package has this setting by default or as a codable option.

There are other communication parameters which are unique for each RJE site and which must be set up in the client's software package. The most important of these is:

EXCHANGE ID (XID):   **=**   **nnn,xxxxx**

This may also be referred to as the "station block id" and is actually two parameters combined.

January 2000

The first parameter (nnn) is a three-digit field known as the "id block (idblk)". The "idblk" describes the device type of the client's RJE system. This parameter must be verified with Customs Data Center communications personnel. (For an IBM System/36, the idblk = 03e. For an IBM AS/400, the idblk = 056. For most other systems, the idblk = 017.)

The second parameter is a five digit field known as the "id number (idnum)". The "idnum" must be UNIQUE FOR EACH CLIENT RJE SITE. It is assigned by Customs communications personnel when the client's RJE definition is created within the Customs HOST at the request of the client representative. The client representative will convey the "idnum" information to the client.

Logon Statement

To initiate a communications session with the Customs Data Center, the LOGON statement is required. The LOGON statement is set up in a client's RJE communications software. The LOGON statement must be formatted as follows:

LOGON APPLID(JES2AS1) DATA(RMTnnnn,,password)

The number "nnnn" is the SDLC remote number, and "password" is the eight-digit password. Both are assigned to the client's RJE by the Customs Data Center and will be conveyed to the client by their assigned ACS client representative. Note the mandatory TWO commas separating the remote number and the password.

Basic Job Control Language

The following is the basic set of Job Control Language (JCL) needed for a remote to submit an Automated Broker Interface (ABI) job to U.S. Customs HOST computer using Customs 377x SDLC protocol. Customs uses the file/record nomenclature to distinguish the different segments of the JCL. Space fill all positions not identified as containing data.

JOB Statement (Record 1)

FILE 1, RECORD 1		
Positions	**Contents**	**Name/Description**
1-2	//	Literal. Identifies this record as JCL.
3-10	ABIRnnnn	Job Name. ABIRnnnn identifies the job. The 'nnnn' must be the same remote number as used in the logon procedure. It is the RJE remote used to transmit the job. Use positions 7 through 9 for three digit remote numbers leaving position 10 of the record blank. Use positions 7 and 8 if the remote number is only two digits long.
12-14	JOB	Literal. Identifies this record as the JOB Statement.
16-27	(1801,2413),	Job Accounting Information. May change in the future. Previous accounting identifier (1801, 4221) is still acceptable. The character in column 19 is a zero.
28-34	BROKER,	Literal. All clients including importers, service bureaus, etc. should use this literal.
35-42	CLASS=Z,	Job Class. The job class that the job will run in.
43-57	MSGLEVEL=(1,1),	Message Level. Sets the amount of reporting that JES will return to the RJE station. Note the dangling comma after this parameter that shows that the JOB statement is continued on the next record.

JOB Statement (Record 2)

FILE 1, RECORD 2		
Positions	**Contents**	**Name/Description**
1-2	//	Literal. Identifies this record as JCL to MVS.
15-25	MSGCLASS=D, MSGCLASS=0, MSGCLASS=1, (use only one of the above parameters, see the instructions)	Message Class. This JCL results of submitting this job will go to this sysout class. These are *not* the ABI data processing results for entry summaries, cargo releases, etc. MSGCLASS=D suppresses returning almost all the JCL results messages if the job successfully executes. **MSGCLASS=D will return JCL results only when a problem occurs, and is therefore the recommended selection.** There is no known reason to use 0 or 1 except for trouble shooting. Use MSGCLASS=0 (zero) to have JCL results returned if using PRINT format. Use MSGCLASS=1 (one) to have JCL results returned if using PUNCH format.
26-35	USER=Rnnnn	The user (remote number) of the RJE. The 'nnnn' is the remote number assigned to your remote (no leading zeroes). Three digit remotes leave position 35 (the last character) blank. Two digit remotes leave positions 34 and 35 (the last two characters) blank.

EXECUTE Statement

FILE 1, RECORD 3		
Positions	**Contents**	**Name/Description**
1-2	//	Literal. Identifies this record as JCL.
3-7	STEP1	Step Name. STEP1 is the name of this step within the execution of the job.
10-13	EXEC	Literal. Identifies this as an EXECute statement.
16-22	ABIPR02	PROC Name. Identifies the PROCedure that this job will execute.

Data Definition (DD) Statement

FILE 1, RECORD 4		
Positions	**Contents**	**Name/Description**
1-16	//	Literal. Identifies this as the SYSUT1 dataset defined within the ABIST01 step of the PROC. The character in column 8 is a zero.
19-22	DD	Literal. Identifies this record as a DD (Data Definition) statement.
22	*	Literal. The asterisk in this context indicates that data immediately follows this statement.

ABI Data Records

FILE 1, RECORD 5		
Positions	Contents	Name/Description
1-80	ABI Data	Put the control and data records for ABI here (e.g., A, B, Y, Z records, etc.). Refer to the CATAIR (Customs and Trade Automated Interface Requirements) for the format of these records.

End of Data (/*) Statement

FILE 1, LAST RECORD		
Positions	Contents	Name/Description
1-5	/*EOF	Literal. Identifies the end of the dataset defined by the previous DD statement. This does not change. This must be the last record in this file.

Logoff Statement

Customs 377xSDLC protocol may use any of a variety of procedures to disconnect called "logging off". These procedures are not discussed in detail because they are normally unique to the client's SDLC communications software. An unformatted "LOGOFF" command may alternately be used to terminate the communications session.

Sysout Classes

Customs 377xSDLC protocol support multiple sysout classes. This allows Customs to segregate data to help users selectivity receive ABI output.

The default sysout class is 0 (zero). This is standard 377x PRINT format (132 possible characters per line). An option in the system allows a client to retrieve data in PUNCH format (80 characters per line limit). PUNCH formatted output is returned in sysout class 1 (one). Since all ABI output uses only 80 characters per line, the PUNCH output option may allow the most efficient data retrieval. Any client wishing to use PUNCH format must inform their client representative.

Liquidation notices and Notices of Extension/Suspension can be segregated from the rest of the print or punch output. The client representative must update the Customs ABI profile records to provide this capability. Such notices will then be returned in sysout class P if print format is used or sysout class K if punch format is used. All other output will be returned in either sysout class 0 (zero) for print or sysout class 1 (one) for punch.

Controlling Sysout Queues

The system standard default is for Customs to automatically send all data in all sysout queues when a client logs on to the Customs system. Users can control the sysout classes they receive by making the following changes to the JCL (also referred to as "Selective Retrieval"). This technique *must* be used if a client has been set up to retrieve liquidations in a separate sysout class (coordinate with your client representative). The technique is also useful if a client wants to send data to Customs before receiving output; though Customs 377xSDLC protocol does permit sending and receiving data simultaneously (full duplex).

Example commands notes in this section assume that a print device is being used to receive data. If a punch device is used, substitute PU for PR in all examples.

The client must instruct the Customs computer system to "unset" the sysout class whenever they do *not* want output sent. Use the following command to do this.

> /*$TPR1,Q=X   Sets the sysout class to X. This effectively 'unsets' the last specified sysout class. Automatic sending of output data will not occur until the sysout class is reset as detailed below.

The client will use the following two commands whenever they want the Customs computer system to send data. The client must be logged on. Do *not* send these commands in the middle of a 'file' (e.g., file 1). The two commands are most often sent together.

> /*$TPRI,Q=0   Specify the sysout class in position 11. '0' (zero) or 'P' (liquidations) for print, '1' (one) or 'K' (liquidations) for punch. This command sets the Customs spooler to prepare to send data in the sysout queue specified after the Q =. Data transmission may not begin until after the next command (start) is sent.

/*$SPR1	Starts the printer to receive data for the specified class. The client will start receiving data from the sysout queue specified by the TPR1 command.

At this point the system will send the data for the sysout class specified above. After receiving the data, send any new input data to Customs (e.g., file 1) or logoff.

Use of this modified JCL must be coordinated with the client representative. Failure to do so may cause unpredictable receipt of unwanted output when logged on to the Customs system, especially if the system "goes down" between the last logoff and the current logon.

Logging On Only to Pick Up Output

The client may want to log on to the Customs computer *only* to pick up output. This can be done in one of two ways, depending on whether or not the client is controlling sysout queues as discussed in the previous section.

If controlling sysout queues, the client will log on, send the commands to set and start the printer (instead of file 1), and then log off. If not controlling sysout queues, the client can simply log on and wait (without sending file 1). The Customs HOST will send output (if any exists) soon after the client logs on. The client can then log off with sending file 1.

Automatic Printer or Punch Restart

One important feature of SDLC RJE is that the host system will set a printer or punch device to a *drained* status whenever the host has data to transmit to the remote device, but the device is not ready to receive. This often occurs immediately after a remote has completed logging on to the system, but has not yet enabled the print or punch logical unit (LU) to receive data. When a printer or punch is drained, the host system will not attempt to send any data to the device until it is manually restarted. A start command (as discussed under *Controlling Sysout Queues*) must be issued to restart the drained device (namely /*$SPR1 or /*$SPU1).

To automatically restart a drained device, Customs recommends users send a start command immediately after the printer or punch LU has been enabled to receive data. Note that a start command issued against an active printer or punch will have no effect.

Data Center Interface

There are various times when a client makes a request of a client representative that requires that involvement of the Customs Data Center. Depending on the circumstances, the client

representative may handle all contact with the Data Center, or may ask the Data Center personnel to communicate directly with the client.

The client representative must inform the Data Center if a client wants to use the PUNCH output option. The Data Center will then modify the profile for that remote to use the PUNCH format.

The client representative should inform the Data Center if a client wants to control sysout queues. The Data Center will configure the client's remote to require the start printer command (/*$SPR1) before the Customs HOST will send data to the client's RJE. This configuration is commonly known as 'draining' the printer. If this is not done, the HOST may send data to the client's RJE before the client has an opportunity to set the sysout class.